BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.

~~20567862~~ 10/777,430

FILE 'HOME' ENTERED AT 14:55:06 ON 24 JUN 2003

=> file biosis medline caplus wpids uspatfull
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 0.21 0.21

FILE 'BIOSIS' ENTERED AT 14:55:31 ON 24 JUN 2003
COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'MEDLINE' ENTERED AT 14:55:31 ON 24 JUN 2003

FILE 'CAPLUS' ENTERED AT 14:55:31 ON 24 JUN 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 14:55:31 ON 24 JUN 2003
COPYRIGHT (C) 2003 THOMSON DERWENT

FILE 'USPATFULL' ENTERED AT 14:55:31 ON 24 JUN 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

*** YOU HAVE NEW MAIL ***

=> s oligonucleotide? or nucleic acid?
L1 584043 OLIGONUCLEOTIDE? OR NUCLEIC ACID?

=> s l1 and terminal (6a) charge (5a) phospho? (9a) label?
4 FILES SEARCHED...
L2 3 L1 AND TERMINAL (6A) CHARGE (5A) PHOSPHO? (9A) LABEL?

=> d l2 bib abs 1-3

L2 ANSWER 1 OF 3 USPATFULL
AN 2003:106233 USPATFULL
TI Compositions and methods for the therapy and diagnosis of pancreatic cancer
IN Benson, Darin R., Seattle, WA, UNITED STATES
Kalos, Michael D., Seattle, WA, UNITED STATES
Lodes, Michael J., Seattle, WA, UNITED STATES
Persing, David H., Redmond, WA, UNITED STATES
Hepler, William T., Seattle, WA, UNITED STATES
Jiang, Yuqiu, Kent, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2003073144 A1 20030417
AI US 2002-60036 A1 20020130 (10)
PRAI US 2001-333626P 20011127 (60)
US 2001-305484P 20010712 (60)
US 2001-265305P 20010130 (60)
US 2001-267568P 20010209 (60)
US 2001-313999P 20010820 (60)
US 2001-291631P 20010516 (60)
US 2001-287112P 20010428 (60)
US 2001-278651P 20010321 (60)
US 2001-265682P 20010131 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17

09567863

ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 14253
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly pancreatic cancer, are disclosed. Illustrative compositions comprise one or more pancreatic tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly pancreatic cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 2 OF 3 USPATFULL
AN 2002:272801 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN Stolk, John A., Bothell, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Chenault, Ruth A., Seattle, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2002150922 A1 20021017
AI US 2001-998598 A1 20011116 (9)
PRAI US 2001-304037P 20010710 (60)
US 2001-279670P 20010328 (60)
US 2001-267011P 20010206 (60)
US 2000-252222P 20001120 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 9233
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 3 OF 3 USPATFULL
AN 2002:243051 USPATFULL
TI Compositions and methods for the therapy and diagnosis of ovarian cancer
IN Algate, Paul A., Issaquah, WA, UNITED STATES
Jones, Robert, Seattle, WA, UNITED STATES
Harlocker, Susan L., Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2002132237 A1 20020919
AI US 2001-867701 A1 20010529 (9)
PRAI US 2000-207484P 20000526 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,

SEATTLE, WA, 98104-7092
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 25718
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly ovarian cancer, are disclosed. Illustrative compositions comprise one or more ovarian tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d l2 kwic

L2 ANSWER 1 OF 3 USPATFULL
SUMM . . . the steps of: (a) contacting a biological sample, e.g., tumor sample, serum sample, etc., obtained from a patient with an **oligonucleotide** that hybridizes to a polynucleotide that encodes a polypeptide of the present invention; (b) detecting in the sample a level of a polynucleotide, preferably mRNA, that hybridizes to the **oligonucleotide**; and (c) comparing the level of polynucleotide that hybridizes to the **oligonucleotide** with a predetermined cut-off value, and therefrom determining the presence or absence of a cancer in the patient. Within certain embodiments, the amount of mRNA is detected via polymerase chain reaction using, for example, at least one **oligonucleotide** primer that hybridizes to a polynucleotide encoding a polypeptide as recited above, or a complement of such a polynucleotide. Within other embodiments, the amount of mRNA is detected using a hybridization technique, employing an **oligonucleotide** probe that hybridizes to a polynucleotide that encodes a polypeptide as recited above, or a complement of such a polynucleotide.
SUMM . . . a cancer in a patient, comprising the steps of: (a) contacting a biological sample obtained from a patient with an **oligonucleotide** that hybridizes to a polynucleotide that encodes a polypeptide of the present invention; (b) detecting in the sample an amount of a polynucleotide that hybridizes to the **oligonucleotide**; (c) repeating steps (a) and (b) using a biological sample obtained from the patient at a subsequent point in time;. . .
SUMM . . . to a polypeptide as described above, as well as diagnostic kits comprising such antibodies. Diagnostic kits comprising one or more **oligonucleotide** probes or primers as described above are also provided.
SUMM [2043] SEQ ID **NO:2003 is the determined cDNA sequence of clone 61496359**
DETD . . . to generate a plasmid library in E. coli. Individual E. coli colonies were isolated and the cDNA clones subjected to **nucleic acid** sequencing. The nucleotide sequences of exemplary clones are disclosed herein as SEQ ID NOs:1-66, 75-152, 174-177, 182, 184-452, 454-4550. The. . .
CLM What is claimed is:
8. An **oligonucleotide** that hybridizes to a sequence recited in SEQ ID NOs:1-66, 75-152, 174-177, 182, 184-452, and 454-4550 under moderately stringent conditions.
. . .

. . . patient, comprising the steps of: (a) obtaining a biological sample from the patient; (b) contacting the biological sample with an **oligonucleotide** according to claim 8; (c) detecting in the sample an amount of a polynucleotide that hybridizes to the **oligonucleotide**; and (d) comparing the amount of polynucleotide that hybridizes to the **oligonucleotide** to a predetermined cut-off value, and therefrom determining the presence of the cancer in the patient.

15. A diagnostic kit comprising at least one **oligonucleotide** according to claim 8.

```
=> d his

     (FILE 'HOME' ENTERED AT 14:55:06 ON 24 JUN 2003)

     FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 14:55:31 ON
     24 JUN 2003
L1       584043 S OLIGONUCLEOTIDE? OR NUCLEIC ACID?
L2            3 S L1 AND TERMINAL (6A) CHARGE (5A) PHOSPHO? (9A) LABEL?

=> s l1 and positiv? (3a)  moiet?
L3         318 L1 AND POSITIV? (3A) MOIET?

=> s l3 and phosphate group?
L4          88 L3 AND PHOSPHATE GROUP?

=> s l4 and dye
L5          60 L4 AND DYE

=> s l5 and phosphate (4a) positi? (4a) dye
   4 FILES SEARCHED...
L6           0 L5 AND PHOSPHATE (4A) POSITI? (4A) DYE

=> s l3 and phosphate(5a) positi? (5a) dye?
L7           1 L3 AND PHOSPHATE(5A) POSITI? (5A) DYE?

=> d l7 bib abs

L7   ANSWER 1 OF 1 USPATFULL
AN     2002:243051  USPATFULL
TI     Compositions and methods for the therapy and diagnosis of ovarian cancer
IN     Algate, Paul A., Issaquah, WA, UNITED STATES
       Jones, Robert, Seattle, WA, UNITED STATES
       Harlocker, Susan L., Seattle, WA, UNITED STATES
PA     Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI     US 2002132237      A1   20020919
AI     US 2001-867701     A1   20010529 (9)
PRAI   US 2000-207484P     20000526 (60)
DT     Utility
FS     APPLICATION
LREP   SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
       SEATTLE, WA, 98104-7092
CLMN   Number of Claims: 11
ECL    Exemplary Claim: 1
DRWN   No Drawings
LN.CNT 25718
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     Compositions and methods for the therapy and diagnosis of cancer,
       particularly ovarian cancer, are disclosed. Illustrative compositions
```

comprise one or more ovarian tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d l7 bib abs kwic

L7 ANSWER 1 OF 1 USPATFULL
AN 2002:243051 USPATFULL
TI Compositions and methods for the therapy and diagnosis of ovarian cancer
IN Algate, Paul A., Issaquah, WA, UNITED STATES
Jones, Robert, Seattle, WA, UNITED STATES
Harlocker, Susan L., Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2002132237 A1 20020919
AI US 2001-867701 A1 20010529 (9)
PRAI US 2000-207484P 20000526 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 25718
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly ovarian cancer, are disclosed. Illustrative compositions comprise one or more ovarian tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
SUMM . . . the steps of: (a) contacting a biological sample, e.g., tumor sample, serum sample, etc., obtained from a patient with an **oligonucleotide** that hybridizes to a polynucleotide that encodes a polypeptide of the present invention; (b) detecting in the sample a level of a polynucleotide, preferably mRNA, that hybridizes to the **oligonucleotide**; and (c) comparing the level of polynucleotide that hybridizes to the **oligonucleotide** with a predetermined cut-off value, and therefrom determining the presence or absence of a cancer in the patient. Within certain embodiments, the amount of mRNA is detected via polymerase chain reaction using, for example, at least one **oligonucleotide** primer that hybridizes to a polynucleotide encoding a polypeptide as recited above, or a complement of such a polynucleotide. Within other embodiments, the amount of mRNA is detected using a hybridization technique, employing an **oligonucleotide** probe that hybridizes to a polynucleotide that encodes a polypeptide as recited above, or a complement of such a polynucleotide.
SUMM . . . a cancer in a patient, comprising the steps of: (a) contacting a biological sample obtained from a patient with an **oligonucleotide** that hybridizes to a polynucleotide that encodes a polypeptide of the present invention; (b) detecting in the sample an amount of a polynucleotide that hybridizes to the

oligonucleotide; (c) repeating steps (a) and (b) using a biological sample obtained from the patient at a subsequent point in time;. . .

SUMM . . . to a polypeptide as described above, as well as diagnostic kits comprising such antibodies. Diagnostic kits comprising one or more **oligonucleotide** probes or primers as described above are also provided.

SUMM [2043] SEQ **ID NO: 2004 represents the cDNA sequence for** clone **AA165409.**

CLM What is claimed is:

. . . patient, comprising the steps of: (a) obtaining a biological sample from a patient; (b) contacting the biological sample with an **oligonucleotide** that hybridizes to a sequence set forth in any one of SEQ ID NO: 1-10,912 under highly stringent conditions; (c) detecting in the sample an amount of a polynucleotide that hybridizes to the **oligonucleotide**; and (d) comparing the amount of polynucleotide that hybridizes to the **oligonucleotide** to a predetermined cut-off value, and therefrom detecting the presence of ovarian cancer in the patient.

. . . The method of claim 1, wherein said detecting in the sample an amount of a polynucleotide that hybridizes to the **oligonucleotide** is performed by a polymerase chain reaction.

6. An **oligonucleotide** useful in the detection of ovarian cancer in a patient, wherein said **oligonucleotide** hybridizes to a sequence set forth in any one of SEQ ID NO: 1-10,912 under highly stringent conditions.

7. A diagnostic kit comprising at least one **oligonucleotide** according to claim 6.

```
=> d his

     (FILE 'HOME' ENTERED AT 14:55:06 ON 24 JUN 2003)

     FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 14:55:31 ON
     24 JUN 2003
L1       584043 S OLIGONUCLEOTIDE? OR NUCLEIC ACID?
L2            3 S L1 AND TERMINAL (6A) CHARGE (5A) PHOSPHO? (9A) LABEL?
L3          318 S L1 AND POSITIV? (3A)  MOIET?
L4           88 S L3 AND PHOSPHATE GROUP?
L5           60 S L4 AND DYE
L6            0 S L5 AND PHOSPHATE (4A) POSITI? (4A) DYE
L7            1 S L3 AND PHOSPHATE(5A) POSITI? (5A) DYE?

=> s l1 and phosph? (5a) positi? (5a) dye?
   4 FILES SEARCHED...
L8           30 L1 AND PHOSPH? (5A) POSITI? (5A) DYE?

=> dup rem l8
PROCESSING COMPLETED FOR L8
L9           29 DUP REM L8 (1 DUPLICATE REMOVED)

=> s l9 not l2
L10          26 L9 NOT L2

=> s l10 not l7
L11          26 L10 NOT L7
```

=> d l11 bib abs 1-26

L11 ANSWER 1 OF 26 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1985:425009 BIOSIS
DN BA80:95001
TI **OLIGONUCLEOTIDES** COVALENTLY LINKED TO INTERCALATING AGENTS INFLUENCE OF POSITIVELY CHARGED SUBSTITUENTS ON BINDING TO COMPLEMENTARY SEQUENCES.
AU ASSELINE U; THUONG N T; HELENE C
CS CENTRE DE BIOPHYSIQUE MOLECULAIRE, 45045 ORLEANS CEDEX, FRANCE.
SO J BIOL CHEM, (1985) 260 (15), 8936-8941.
CODEN: JBCHA3. ISSN: 0021-9258.

FS BA; OLD
LA English
AB A pentamethylene chain was used to covalently link the 3'-phosphate of oligothymidylates to the 9-amino group of an acridine derivative. Positively charged substituents were further attached to the 3'-phosphate group to form 3'-phosphotriesters. These molecules form specific complexes with poly(rA) which involve the formation of a number of A .cntdot. T base pairs equal to that of thymines in the **oligonucleotide**. Absorption changes induced in the acridine absorption bands are similar to those expected upon intercalation of the acridine dye between A .cntdot. T base pairs. the acridine covalently linked to the 3'-phosphate strongly stabilizes the complexes formed with poly(rA) as compared with the corresponding unsubstituted oligodeoxynucleotide. The presence of a **positively** charged substituent on the 3'-**phosphate** together with the acridine **dye** further enhances the interaction. The effect of salt concentration on complex stability depends on the number of negatively charged phosphate groups of the oligodeoxynucleotide and on the nature of the substituents borne by the 3'-phosphate group. When the oligothymidylate is substituted by an acridine dye, the stability of the poly(rA) complexes increases when salt concentration increases. If an additional positively charged substituent is present on the 3'-phosphate group, stability decreases when salt concentration increases for the shortest **oligonucleotide** (trimer) and increases with longer **oligonucleotides**. Thermodynamic parameters were calculated from the concentration dependence of melting temperatures.

L11 ANSWER 2 OF 26 WPIDS (C) 2003 THOMSON DERWENT
AN 2002-674850 [72] WPIDS
CR 1997-393613 [36]; 1998-322748 [28]; 1998-557036 [47]; 2002-083110 [11]
DNC C2002-190055
TI Composition useful for e.g. separation of **nucleic acids** comprises a positively or neutrally charged phosphoramidite.
DC B04 B05 D16
IN ALLAWI, H T; LYAMICHEV, V; NERI, B P; SKRZPCZYNSKI, Z; TAKOVA, T; WAYLAND, S R
PA (THIR-N) THIRD WAVE TECHNOLOGIES INC
CYC 100
PI WO 2002063030 A2 20020815 (200272)* EN 197p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
US 2002128465 A1 20020912 (200272)
ADT WO 2002063030 A2 WO 2002-US3423 20020206; US 2002128465 A1 CIP of US 1996-682853 19960712, CIP of US 1999-333145 19990614, US 2001-777430 20010206

09567863

FDT US 2002128465 A1 CIP of US 6001567
PRAI US 2001-777430 20010206; US 1996-682853 19960712; US 1999-333145 19990614
AN 2002-674850 [72] WPIDS
CR 1997-393613 [36]; 1998-322748 [28]; 1998-557036 [47]; 2002-083110 [11]
AB WO 200263030 A UPAB: 20030619
NOVELTY - Composition comprises a positively or neutrally charged phosphoramidite.

DETAILED DESCRIPTION - Composition (c) or (c') comprises a positively charged phosphoramidite of formula (I) or a neutrally charged phosphoramidite of formula (II). (I) comprises nitrogen-containing chemical group selected from primary, secondary or tertiary amine or ammonium group. (II) comprises secondary or tertiary amine or ammonium group.

X, Z = a reactive phosphate group;
Y = a protected hydroxy group;
X' = a protected hydroxy group;
N, N' = an amine group.

INDEPENDENT CLAIMS are included for the following:

(1) a composition (c1) comprising a charge tag (x1) attached to a terminal end of a **nucleic acid** molecule, the charge tag comprises a phosphate group and a positively charged molecule;

(2) a composition (c2) comprising a **nucleic acid** molecule that comprises a positively charged phosphoramidite;

(3) a composition (c3) comprising a charge tag attached to the terminal end of a **nucleic acid** molecule, the charge tag comprises a positively charged phosphoramidite;

(4) a composition (c4) comprising a fluorescent dye directly bonded to a phosphate group, which is not directly bonded to an amine group;

(5) a mixture (m) comprising a number of **oligonucleotides**, each **oligonucleotide** is attached to a different charge tag with each charge tag comprising a phosphate group and a positively charged group;

(6) a composition (c5) comprising a solid support attached to a charged tag, the charge tag comprises a positively charged group and a reactive group configured to allow the charge tag to covalently attach to the **nucleic acid** molecule;

(7) separating **nucleic acid** molecules involving either:

(a) treating (m1) a charge-balanced **oligonucleotide** containing the charge tag to produce a charge-unbalanced **oligonucleotide** and separating the charge-unbalanced **oligonucleotide** from the reaction mixture; or

(b) treating (m2) a number of charge-balanced **oligonucleotides**, each containing different charge tags, to produce at least 2 charge-unbalanced **oligonucleotides**, and separating the charge-unbalanced **oligonucleotides** from the reaction mixture.

USE - The composition is useful for separation of **nucleic acid** molecules (claimed). The composition is further useful for fractionation of specific **nucleic acids** by selective charge reversal useful in e.g. INVADER assay cleavage reactions; and in the synthesis of charge-balanced molecules.

ADVANTAGE - In the fractionation of **nucleic acid** molecules, the method provides an absolute readout of the partition of products from substrates (i.e. provides a 100% separation). Through the use of multiple positively charged adducts, synthetic molecules can be constructed with sufficient modification due to the fact that the normally negatively charged strand is made nearly neutral. It is also possible to distinguish between a enzymatically or thermally degraded DNA fragments due to the absence or presence of 3'phosphate.

Dwg.0/46

L11 ANSWER 3 OF 26 USPATFULL
AN 2003:159317 USPATFULL
TI Method of evaluating drug efficacy and toxicity
IN Ishiguro, Takahiko, Yokohama-shi, JAPAN
Yasukawa, Kiyoshi, Kawasaki-shi, JAPAN
Tsuchiya, Shigeo, Tokyo, JAPAN
PA TOSOH CORPORATION, Shinnanyo-shi, JAPAN (non-U.S. corporation)
PI US 2003108930 A1 20030612
AI US 2002-266605 A1 20021009 (10)
PRAI JP 2001-312716 20011010
DT Utility
FS APPLICATION
LREP OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C., 1940 DUKE STREET, ALEXANDRIA, VA, 22314
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 558
AB A method of assaying the efficacy and/or toxicity of a test substance by expression of a specific gene in a cell or a microorganism, which comprises treating the cell or the microorganism with the test substance, a step of amplifying an RNA having a sequence homologous or complementary to a specific sequence in a target RNA obtained as the result of transcription of the specific gene, and a step of determining whether the target RNA is transcribed through the expression of the specific gene by detecting the RNA amplified in the previous amplification step.

L11 ANSWER 4 OF 26 USPATFULL
AN 2003:140412 USPATFULL
TI Single nucleotide amplification and detection by polymerase
IN Nelson, John, Neshanic Station, NJ, UNITED STATES
Fuller, Carl, Berkeley Heights, NJ, UNITED STATES
Sood, Anup, Flemington, NJ, UNITED STATES
Kumar, Shiv, Belle Mead, NJ, UNITED STATES
PI US 2003096253 A1 20030522
AI US 2002-113025 A1 20020401 (10)
PRAI US 2001-315798P 20010829 (60)
DT Utility
FS APPLICATION
LREP Amersham Biosciences Corp., 800 Centennial Avenue, Piscataway, NJ, 08855
CLMN Number of Claims: 78
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 1354
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method of characterizing a **nucleic acid** sample is provided that includes the steps of: (a) conducting a DNA polymerase reaction that includes the reaction of a template, a non-hydrolyzable primer, at least one terminal phosphate-labeled nucleotide, DNA polymerase, and an enzyme having 3'.fwdarw.5' exonuclease activity which reaction results in the production of labeled polyphosphate; (b) permitting the labeled polyphosphate to react with a phosphatase to produce a detectable species characteristic of the sample; (c) detecting the detectable species; and (d) characterizing the **nucleic acid** sample based on the detection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 5 OF 26 USPATFULL

09567863

AN 2003:109193 USPATFULL
TI Fluorescence dyes and their use as fluorescence markers
IN Daltrozzo, Ewald, Constance, GERMANY, FEDERAL REPUBLIC OF
Reiss, Alexander, Frickingen, GERMANY, FEDERAL REPUBLIC OF
PA Roche Diagnostics GmbH, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)
PI US 6552199 B1 20030422
AI US 2000-568679 20000511 (9)
PRAI DE 1999-19923168 19990520
DT Utility
FS GRANTED
EXNAM Primary Examiner: Huang, Evelyn Mei
LREP Amick, Marilyn L., Roche Diagnostics Corporation
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 814
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The subject matter of the invention are new xanthene derivatives of the formula I, ##STR1##

wherein R1,R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, and X, Y, are as defined herein. The compounds according to the invention provide molecules that are--due to their spectral properties (absorption maxima in the range of approx. 650 nm and above as well as emission maxima above 670 nm)--very suitable for the use as dyes and in particular as fluorescence dyes. The compounds of the formula I according to the invention are used for the production of fluorescence conjugates, for their application in immunoassays, for DNA analytics, for in-vivo diagnostics or as a laser dye.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 6 OF 26 USPATFULL
AN 2003:37497 USPATFULL
TI Novel genome analyzing method
IN Ishiguro, Takahiko, Kanagawa, JAPAN
Yasukawa, Kiyoshi, Kanagawa, JAPAN
PA TOSOH CORPORATION (non-U.S. corporation)
PI US 2003027142 A1 20030206
AI US 2001-904557 A1 20010716 (9)
PRAI JP 2000-218737 20000714
JP 2000-263248 20000828
JP 2000-334935 20001030
DT Utility
FS APPLICATION
LREP SUGHRUE MION ZINN MACPEAK & SEAS, PLLC, 2100 Pennsylvania Avenue, NW, Washington, DC, 20037-3213
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 800
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A novel transcriptome analyzing method and to provide a gene found by this method and a protein encoded by the gene. A method for determining whether or not a continued arbitrary DNA sequence existing in the genome of an arbitrary biological species, in which the nucleotide sequence is already known but its possibility of being a gene expression region is unclear (specific region), is the specific region, which comprises detecting whether or not a nucleotide sequence that corresponds to the nucleotide sequence of the region is present in the RNA of the biological species, and a method for determining the gene expression

region in an arbitrary region on a genome or the entire genome, which comprises repeatedly carrying out the above method.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 7 OF 26 USPATFULL
AN 2002:265860 USPATFULL
TI Cyanine dyes as labeling reagents for detection of biological and other materials by luminescence methods
IN Waggoner, Alan S., Pittsburgh, PA, UNITED STATES
PA Carnegie Mellon University (U.S. corporation)
PI US 2002146736 A1 20021010
AI US 2002-103116 A1 20020322 (10)
RLI Division of Ser. No. US 2000-740486, filed on 19 Dec 2000, PENDING Continuation of Ser. No. US 1996-745712, filed on 12 Nov 1996, GRANTED, Pat. No. US 6225050 Continuation-in-part of Ser. No. US 1992-831759, filed on 22 Sep 1992, GRANTED, Pat. No. US 5627027 Continuation of Ser. No. US 1986-854347, filed on 18 Apr 1986, ABANDONED
DT Utility
FS APPLICATION
LREP NIXON & VANDERHYE P.C., 8th Floor, 1100 North Glebe Road, Arlington, VA, 22201-4714
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 1222
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention pertains to luminescent dyes and methods for covalently attaching the dyes to a component or mixture of components so that the components may be detected and/or quantified by luminescence detection methods. The dyes are cyanine and cyanine-type dyes that contain or are derivatized to contain a reactive group. The reactive group is covalently reactive with amine, hydroxy and/or sulfhydryl groups on the component so that the dye can be covalently bound to the component. In addition, the dyes are preferably soluble in aqueous or other medium in which the component is contained. The components to be labeled can be either biological materials, such as antibodies, antigens, peptides, nucleotides, hormones, drugs, or non-biological materials, such as polymers, glass, or other surfaces. Any luminescent or light absorbing detecting step can be employed in the method of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 8 OF 26 USPATFULL
AN 2002:258770 USPATFULL
TI Cyanine dyes as labeling reagents for detection of biological and other materials by luminescence methods
IN Waggoner, Alan S., Pittsburgh, PA, UNITED STATES
PA Carnegie Mellon University (U.S. corporation)
PI US 2002142340 A1 20021003
AI US 2002-103119 A1 20020322 (10)
RLI Division of Ser. No. US 2000-740486, filed on 19 Dec 2000, PENDING Continuation of Ser. No. US 1996-745712, filed on 12 Nov 1996, GRANTED, Pat. No. US 6225050 Continuation-in-part of Ser. No. US 1992-831759, filed on 22 Sep 1992, GRANTED, Pat. No. US 5627027 Continuation of Ser. No. US 1986-854347, filed on 18 Apr 1986, ABANDONED
DT Utility
FS APPLICATION
LREP NIXON & VANDERHYE P.C., 8th Floor, 1100 North Glebe Road, Arlington, VA, 22201-4714
CLMN Number of Claims: 8

09567863

ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 1222
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention pertains to luminescent dyes and methods for covalently attaching the dyes to a component or mixture of components so that the components may be detected and/or quantified by luminescence detection methods. The dyes are cyanine and cyanine-type dyes that contain or are derivatized to contain a reactive group. The reactive group is covalently reactive with amine, hydroxy and/or sulfhydryl groups on the component so that the dye can be covalently bound to the component. In addition, the dyes are preferably soluble in aqueous or other medium in which the component is contained. The components to be labeled can be either biological materials, such as antibodies, antigens, peptides, nucleotides, hormones, drugs, or non-biological materials, such as polymers, glass, or other surfaces. Any luminescent or light absorbing detecting step can be employed in the method of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 9 OF 26 USPATFULL
AN 2002:236261 USPATFULL
TI Charge tags and the separation of **nucleic acid** molecules
IN Lyamichev, Victor, Madison, WI, UNITED STATES
Skrzpczynski, Zbigniew, Verona, WI, UNITED STATES
Allawi, Hatim T., Madison, WI, UNITED STATES
Wayland, Sarah R., Madison, WI, UNITED STATES
Takova, Tsetska, Madison, WI, UNITED STATES
Neri, Bruce P., Madison, WI, UNITED STATES
PA Third Wave Technologies, Inc. (U.S. corporation)
PI US 2002128465 A1 20020912
AI US 2001-777430 A1 20010206 (9)
RLI Continuation-in-part of Ser. No. US 1999-333145, filed on 14 Jun 1999, PENDING Continuation-in-part of Ser. No. US 1996-682853, filed on 12 Jul 1996, GRANTED, Pat. No. US 6001567
DT Utility
FS APPLICATION
LREP MEDLEN & CARROLL, LLP, 101 HOWARD STREET, SUITE 350, SAN FRANCISCO, CA, 94105
CLMN Number of Claims: 86
ECL Exemplary Claim: 1
DRWN 46 Drawing Page(s)
LN.CNT 5163
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to novel phosphoramidites, including positive and neutrally charged compounds. The present invention also provides charge tags for attachment to materials including solid supports and **nucleic acids**, wherein the charge tags increase or decrease the net charge of the material. The present invention further provides methods for separating and characterizing molecules based on the charge differentials between modified and unmodified materials.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 10 OF 26 USPATFULL
AN 2002:213691 USPATFULL
TI Asymmetric benzoxanthene dye labelling reagents
IN Benson, Scott C., Oakland, CA, UNITED STATES
Menchen, Steven M., Fremont, CA, UNITED STATES

09567863

Theisen, Peter D., South San Francisco, CA, UNITED STATES
Hennessey, Kevin M., San Mateo, CA, UNITED STATES
Furniss, Vergine C., San Mateo, CA, UNITED STATES
Hauser, Joan D., Oakland, CA, UNITED STATES
PA The Perkin-Elmer Corporation, Foster City, CA (U.S. corporation)
PI US 2002115067 A1 20020822
AI US 2001-976842 A1 20011011 (9)
RLI Continuation of Ser. No. US 2000-495111, filed on 1 Feb 2000, PATENTED
Continuation of Ser. No. US 1996-626085, filed on 1 Apr 1996, PATENTED
DT Utility
FS APPLICATION
LREP PATTI SELAN, PATENT ADMINISTRATOR, APPLIED BIOSYSTEMS, 850 LINCOLN CENTRE DRIVE, FOSTER CITY, CA, 94404
CLMN Number of Claims: 41
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 1708
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A class of asymmetric monobenzoxanthene compounds useful as fluorescent dyes are disclosed having the structure ##STR1##

wherein Y.sub.1 and Y.sub.2 are individually hydroxyl amino, imminium, or oxygen, R.sub.1-r.sub.8 are hydrogen, fluorine, chlorine, alkyl, alkene, alkyne, sulfonate, amino, amido, nitrile, alkoxy, linking group, and combinations thereof and R.sub.9 is acetylene, alkane, alkene, cyano, substituted phenyl, and combinations thereof. The invention further includes novel intermediate compounds useful for the synthesis of asymmetric benzoxanthene compounds having the general structure ##STR2##

where substituents R.sub.3-R.sub.7 correspond to like-referenced substituents in the structure of described above, and Y.sub.2 is hydroxyl or amine. In another aspect the invention includes methods for synthesizing the above dye compounds and intermediates. In yet another aspect the present invention includes reagents labeled with the asymmetric benzoxanthene dye compounds, including deoxynucleotides, dideoxynucleotides, phosphoramidites, and polynucleotides. In an additional aspect, the invention includes methods utilizing such dye compounds and reagents including dideoxy polynucleotide sequencing and fragment analysis methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 11 OF 26 USPATFULL
AN 2002:198553 USPATFULL
TI Novel **nucleic acid** probes, method for determining concentrations of **nucleic acid** by using the probes, and method for analyzing data obtained by the method
IN Kurane, Ryuichiro, Tsukuba-shi, JAPAN
Kanagawa, Takahiro, Tsukuba-shi, JAPAN
Kamagata, Yoichi, Tsukuba-shi, JAPAN
Torimura, Masaki, Tsukuba-shi, JAPAN
Kurata, Shinya, Tokyo, JAPAN
Yamada, Kazutaka, Tokyo, JAPAN
Yokomaku, Toyokazu, Tokyo, JAPAN
PA Nat' l Inst. of advan. Industrial Science and Tech, Tokyo, JAPAN (non-U.S. corporation)
PI US 2002106653 A1 20020808
AI US 2001-891517 A1 20010627 (9)
PRAI JP 2000-193133 20000627
JP 2000-236115 20000803
JP 2000-292483 20000926

09567863

DT Utility
FS APPLICATION
LREP OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT PC, FOURTH FLOOR, 1755 JEFFERSON DAVIS HIGHWAY, ARLINGTON, VA, 22202
CLMN Number of Claims: 54
ECL Exemplary Claim: 1
DRWN 39 Drawing Page(s)
LN.CNT 5605
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Nucleic acid** probes are provided, each of which is formed of a single-stranded **oligonucleotide** which can hybridize to a target **nucleic acid** and is labeled with a fluorescent dye or with a fluorescent dye and a quencher substance. The **nucleic acid** probes can be easily designed, permit determination, polymorphous analysis or real-time quantitative PCR of **nucleic acids** in short time, and are not dissociated during reactions. **Nucleic acid** determination methods, polymorphous analysis methods and real-time quantitative PCR methods, which make use of the **nucleic acid** probes, are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 12 OF 26 USPATFULL
AN 2002:165352 USPATFULL
TI Energy transfer dyes with enhanced fluorescence
IN Lee, Linda G., Palo Alto, CA, UNITED STATES
Spurgeon, Sandra L., San Mateo, CA, UNITED STATES
Rosenblum, Barnett, San Jose, CA, UNITED STATES
PI US 2002086985 A1 20020704
AI US 2001-14743 A1 20011029 (10)
RLI Continuation of Ser. No. US 1999-272097, filed on 18 Mar 1999, PATENTED Continuation of Ser. No. US 1998-46203, filed on 23 Mar 1998, PATENTED Continuation of Ser. No. US 1996-726462, filed on 4 Oct 1996, PATENTED Continuation-in-part of Ser. No. US 1996-672196, filed on 27 Jun 1996, PATENTED Continuation-in-part of Ser. No. US 1996-642330, filed on 3 May 1996, PATENTED
DT Utility
FS APPLICATION
LREP WILSON SONSINI GOODRICH & ROSATI, 650 PAGE MILL ROAD, PALO ALTO, CA, 943041050
CLMN Number of Claims: 79
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 2533
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye are provided. These linkers faciliate the efficient transfer of energy between a donor and acceptor dye in an energy transfer dye. One of these linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye has the general structure R.sub.21Z.sub.1C(O)R.sub.22R.sub.28 where R.sub.21 is a C.sub.1-5 alkyl attached to the donor dye, C(O) is a carbonyl group, Z.sub.1 is either NH, sulfur or oxygen, R.sub.22 is a substituent which includes an alkene, diene, alkyne, a five and six membered ring having at least one unsaturated bond or a fused ring structure which is attached to the carbonyl carbon, and R.sub.28 includes a functional group which attaches the linker to the acceptor dye.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 13 OF 26 USPATFULL

09567863

AN 2002:112537 USPATFULL
TI UV excitable fluorescent energy transfer dyes
IN Lee, Linda G., Palo Alto, CA, UNITED STATES
PI US 2002058272 A1 20020516
AI US 2001-902561 A1 20010710 (9)
RLI Division of Ser. No. US 1999-385352, filed on 27 Aug 1999, PENDING
DT Utility
FS APPLICATION
LREP WILSON SONSINI GOODRICH & ROSATI, 650 PAGE MILL ROAD, PALO ALTO, CA, 943041050
CLMN Number of Claims: 70
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 1643
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel energy transfer dyes which can be used with shorter wavelength light sources are provided. These dyes include a donor dye with an absorption maxima at a wavelength between about 250 to 450 nm and an acceptor dye which is capable of absorbing energy emitted from the donor dye. One of the energy transfer dyes has a donor dye which is a member of a class of dyes having a coumarin or pyrene ring structure and an acceptor dye which is capable of absorbing energy emitted from the donor dye, wherein the donor dye has an absorption maxima between about 250 and 450 nm and the acceptor dye has an emission maxima at a wavelength greater than about 500 nm.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 14 OF 26 USPATFULL
AN 2002:57547 USPATFULL
TI UV excitable fluorescent energy transfer dyes
IN Lee, Linda G., Palo Alto, CA, United States
PA PE Corporation, Foster City, CA, United States (U.S. corporation)
PI US 6358684 B1 20020319
AI US 1999-385352 19990827 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Riley, Jezia
LREP Weitz, David J., Wilson Sonsini Goodrich & Rosati
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 14 Drawing Figure(s); 15 Drawing Page(s)
LN.CNT 1482
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel energy transfer dyes which can be used with shorter wavelength light sources are provided. These dyes include a donor dye with an absorption maxima at a wavelength between about 250 to 450 nm and an acceptor dye which is capable of absorbing energy emitted from the donor dye. One of the energy transfer dyes has a donor dye which is a member of a class of dyes having a coumarin or pyrene ring structure and an acceptor dye which is capable of absorbing energy emitted from the donor dye, wherein the donor dye has an absorption maxima between about 250 and 450 nm and the acceptor dye has an emission maxima at a wavelength greater than about 500 nm.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 15 OF 26 USPATFULL
AN 2002:1327 USPATFULL
TI Method for detecting **oligonucleotides** using energy transfer dyes with long stoke shift
IN Lee, Linda G., Palo Alto, CA, United States

09567863

Spurgeon, Sandra L., San Mateo, CA, United States
Rosenblum, Barnett, San Jose, CA, United States
PA PE Corporation (NY), Foster City, CA, United States (U.S. corporation)
PI US 6335440 B1 20020101
AI US 1999-272097 19990318 (9)
RLI Continuation of Ser. No. US 1998-46203, filed on 23 Mar 1998, now patented, Pat. No. US 5945526 Continuation of Ser. No. US 1996-726462, filed on 4 Oct 1996, now patented, Pat. No. US 5800996 Continuation-in-part of Ser. No. US 1996-672196, filed on 27 Jun 1996 Continuation-in-part of Ser. No. US 1996-642330, filed on 3 May 1996, now patented, Pat. No. US 5863727
DT Utility
FS GRANTED
EXNAM Primary Examiner: Houtteman, Scott W.
LREP Weitz, David J., Wilson Sonsini Goodrich & Rosati
CLMN Number of Claims: 59
ECL Exemplary Claim: 1
DRWN 8 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2823
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye are provided. These linkers faciliate the efficient transfer of energy between a donor and acceptor dye in an energy transfer dye. One of these linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye has the general structure R.sub.21Z.sub.1C(O)R.sub.22R.sub.26 where R.sub.21 is a C.sub.1-5 alkyl attached to the donor dye, C(O) is a carbonyl group, Z.sub.1 is either NH, sulfur or oxygen, R.sub.22 is a substituent which includes an alkene, diene, alkyne, a five and six membered ring having at least one unsaturated bond or a fused ring structure which is attached to the carbonyl carbon, and R.sub.28 includes a functional group which attaches the linker to the acceptor dye.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 16 OF 26 USPATFULL
AN 2001:223892 USPATFULL
TI UV excitable fluorescent energy transfer dyes
IN Lee, Linda G., Palo Alto, CA, United States
PI US 2001049109 A1 20011206
AI US 2001-902562 A1 20010710 (9)
RLI Division of Ser. No. US 1999-385352, filed on 27 Aug 1999, PENDING
DT Utility
FS APPLICATION
LREP WILSON SONSINI GOODRICH & ROSATI, 650 PAGE MILL ROAD, PALO ALTO, CA, 943041050
CLMN Number of Claims: 70
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 1643
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel energy transfer dyes which can be used with shorter wavelength light sources are provided. These dyes include a donor dye with an absorption maxima at a wavelength between about 250 to 450 nm and an acceptor dye which is capable of absorbing energy emitted from the donor dye. One of the energy transfer dyes has a donor dye which is a member of a class of dyes having a coumarin or pyrene ring structure and an acceptor dye which is capable of absorbing energy emitted from the donor dye, wherein the donor dye has an absorption maxima between about 250 and 450 nm and the acceptor dye has an emission maxima at a wavelength greater than about 500 nm.

09567863

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 17 OF 26 USPATFULL
AN 2001:179262 USPATFULL
TI Polynucleotides labelled with asymmetric benzoxanthene dyes
IN Benson, Scott C., Oakland, CA, United States
Menchen, Steven M., Fremont, CA, United States
Theisen, Peter D., South San Francisco, CA, United States
Hennessey, Kevin M., San Mateo, CA, United States
Furniss, Vergine C., San Mateo, CA, United States
Hauser, Joan, Oakland, CA, United States
PA The Perkin-Elmer Corporation, Foster City, CA, United States (U.S. corporation)
PI US 6303775 B1 20011016
AI US 2000-495111 20000201 (9)
RLI Continuation of Ser. No. US 1996-626085, filed on 1 Apr 1996, now patented, Pat. No. US 6020481
DT Utility
FS GRANTED
EXNAM Primary Examiner: Houtteman, Scott W.
LREP Andrus, Alex, Grossman, Paul D.
CLMN Number of Claims: 35
ECL Exemplary Claim: 1
DRWN 16 Drawing Figure(s); 15 Drawing Page(s)
LN.CNT 1654
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A class of asymmetric monobenzoxanthene compounds useful as fluorescent dyes are disclosed having the structure ##STR1##

wherein Y.sub.1 and Y.sub.2 are individually hydroxyl, amino, imminium, or oxygen, R.sub.1 -R.sub.8 are hydrogen, fluorine, chlorine, alkyl, alkene, alkyne, sulfonate, amino, amido, nitrile, alkoxy, linking group, and combinations thereof, and R.sub.9 is acetylene, alkane, alkene, cyano, substituted phenyl, and combinations thereof. The invention further includes novel intermediate compounds useful for the synthesis of asymmetric benzoxanthene compounds having the general structure ##STR2##

where substituents R.sub.3 -R.sub.7 correspond to like-referenced substituents in the structure of described above, and Y.sub.2 is hydroxyl or amine. In another aspect, the invention includes methods for synthesizing the above dye compounds and intermediates. In yet another aspect, the present invention includes reagents labeled with the asymmetric benoxanthene dye compounds, including deoxynucleotides, dideoxynucleotides, phosphoramidites, and polynucleotides. In an additional aspect, the invention includes methods utilizing such dye compounds and reagents including dideoxy polynucleotide sequencing and fragment analysis methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 18 OF 26 USPATFULL
AN 2001:63428 USPATFULL
TI Cyanine dyes as labeling reagents for detection of biological and other materials by luminescence methods
IN Waggoner, Alan S., Pittsburgh, PA, United States
PA Carnegie Mellon University, Pittsburgh, PA, United States (U.S. corporation)
PI US 6225050 B1 20010501
AI US 1996-745712 19961112 (8)
RLI Continuation-in-part of Ser. No. US 1992-831759, filed on 22 Sep 1992, now patented, Pat. No. US 5627027 Continuation of Ser. No. US

1986-854347, filed on 18 Apr 1986, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Venkat, Jyothsna; Assistant Examiner: Ponnaluri, P.
LREP Kirkpatrick & Lockhart LLP
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 1289
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Cyanine and related dyes, such as merocyanine, styryl and oxonol dyes, are strongly light-absorbing and highly luminescent. Cyanine and related dyes having functional groups make them reactive with amine, hydroxy and sulfhydryl groups are covalently attached to proteins, **nucleic acids**, carbohydrates, sugars, cells and combinations thereof, and other biological and nonbiological materials, to make these materials fluorescent so that they can be detected. The labeled materials can then be used in assays employing excitation light sources and luminescence detectors. For example, fluorescent cyanine and related dyes can be attached to amine, hydroxy or sulfhydryl groups of avidin and to antibodies and to lectins. Thereupon, avidin labeled with cyanine type dyes can be used to quantify biotinvlated materials and antibodies conjugated with cyanine-type dyes can be used to detect and measure antigens and haptens. In addition, cyanine-conjugated lectins can be used to detect specific carbohydrate groups. Also, cyanine-conjugated fragments of DNA or RNA can be used to identify the presence of complementary nucleotide sequences in DNA or RNA.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 19 OF 26 USPATFULL
AN 2001:59627 USPATFULL
TI Electron-deficient nitrogen heterocycle-substituted fluorescein dyes
IN Upadhya, Krishna G., Union City, CA, United States
Menchen, Steven M., Fremont, CA, United States
Zhen, Weiguo, Foster City, CA, United States
PA PE Corporation, Foster City, CA, United States (U.S. corporation)
PI US 6221604 B1 20010424
AI US 2000-498702 20000207 (9)
DT Utility
FS Granted
EXNAM Primary Examiner: Ceperley, Mary E.
LREP Andrus, Alex
CLMN Number of Claims: 67
ECL Exemplary Claim: 1,25
DRWN 16 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 1874
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides compositions electron-deficient nitrogen heterocycle-substituted fluorescein dyes and methods in which the dyes are conjugated to substrates and used as detection labels in molecular biology experiments. The electron-deficient nitrogen heterocycles include pyridine, quinoline, pyrazine, and the like. Substrates include polynucleotides, nucleosides, nucleotides, peptides, proteins, carbohydrates, and ligands.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 20 OF 26 USPATFULL
AN 2001:55701 USPATFULL
TI Method for detecting **oligonucleotides** using UV light source
IN Lee, Linda G., Palo Alto, CA, United States

09567863

PA PE Corporation, Foster City, CA, United States (U.S. corporation)
PI US 6218124 B1 20010417
AI US 1999-385230 19990827 (9)
DT Utility
FS Granted
EXNAM Primary Examiner: Riley, Jezia
LREP Weitz, David J.Wilson Sonsini Goodrich & Rosati
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN 14 Drawing Figure(s); 15 Drawing Page(s)
LN.CNT 1417
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method for detecting **oligonucleotides** is provided and comprises forming a series of different sized **oligonucleotides** labeled with an energy transfer dye; separating the series of labeled **oligonucleotides** based on size; and detecting the separated labeled **oligonucleotide** by exposing the **oligonucleotides** to light having a wavelength between about 250 and 450 nm and measuring light emitted by the energy transfer dye at a wavelength greater than about 500 nm.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 21 OF 26 USPATFULL
AN 2000:44221 USPATFULL
TI Cyanine dyes as labeling reagents for detection of biological and other materials by luminescence methods
IN Waggoner, Alan S., Pittsburgh, PA, United States
PA Carnegie Mellon University, Pittsburgh, PA, United States (U.S. corporation)
PI US 6048982 20000411
AI US 1997-873470 19970612 (8)
RLI Division of Ser. No. US 1996-745712, filed on 12 Nov 1996 which is a continuation-in-part of Ser. No. US 1992-831759, filed on 22 Sep 1992, now patented, Pat. No. US 5627027 which is a continuation of Ser. No. US 1986-854347, filed on 18 Apr 1986, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: MacMillan, Keith D.; Assistant Examiner: Ponnaluri, P.
LREP Kirkpatrick & Lockhart LLP
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 1172
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Cyanine and related dyes, such as merocyanine, styryl and oxonol dyes, are strongly light-absorbing and highly luminescent. Cyanine and related dyes having functional groups make them reactive with amine, hydroxy and sulfhydryl groups are covalently attached to proteins, **nucleic acids**, carbohydrates, sugars, cells and combinations thereof, and other biological and nonbiological materials, to make these materials fluorescent so that they can be detected. The labeled materials can then be used in assays employing excitation light sources and luminescence detectors. For example, fluorescent cyanine and related dyes can be attached to amine, hydroxy or sulfhydryl groups of avidin and to antibodies and to lectins. Thereupon, avidin labeled with cyanine type dyes can be used to quantify biotinylated materials and antibodies conjugated with cyanine-type dyes can be used to detect and measure antigens and haptens. In addition, cyanine-conjugated lectins can be used to detect specific carbohydrate groups. Also, cyanine-conjugated fragments of DNA or RNA can be used to identify the presence of complementary nucleotide sequences in DNA or RNA.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 22 OF 26 USPATFULL
AN 2000:12944 USPATFULL
TI Asymmetric benzoxanthene dyes
IN Benson, Scott C., Oakland, CA, United States
Menchen, Steven M., Fremont, CA, United States
Theisen, Peter D., South San Francisco, CA, United States
Hennessey, Kevin M., San Mateo, CA, United States
Furniss, Vergine C., San Mateo, CA, United States
Hauser, Joan, Oakland, CA, United States
PA The Perkin-Elmer Corporation, Foster City, CA, United States (U.S. corporation)
PI US 6020481 20000201
AI US 1996-626085 19960401 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Houtteman, Scott W.
LREP Grossman, Paul D.
CLMN Number of Claims: 38
ECL Exemplary Claim: 1
DRWN 17 Drawing Figure(s); 15 Drawing Page(s)
LN.CNT 1682
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A class of asymmetric monobenzoxanthene compounds useful as fluorescent dyes are disclosed having the structure ##STR1## wherein Y.sub.1 and Y.sub.2 are individually hydroxyl amino, imminium, or oxygen, R.sub.1 -R.sub.8 are hydrogen, fluorine, chlorine, alkyl, alkene, alkyne, sulfonate, amino, amido, nitrile, alkoxy, linking group, and combinations thereof, and R.sub.9 is acetylene, alkane, alkene, cyano, substituted phenyl, and combinations thereof. The invention further includes novel intermediate compounds useful for the synthesis of asymmetric benzoxanthene compounds having the general structure ##STR2## where substituents R.sub.3 -R.sub.7 correspond to like-referenced substituents in the structure of described above, and Y.sub.2 is hydroxyl or amine. In another aspect, the invention includes methods for synthesizing the above dye compounds and intermediates. In yet another aspect, the present invention includes reagents labeled with the asymmetric benzoxanthene dye compounds, including deoxynucleotides, dideoxynucleotides, phosphoramidites, and polynucleotides. In an additional aspect, the invention includes methods utilizing such dye compounds and reagents including dideoxy polynucleotide sequencing and fragment analysis methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 23 OF 26 USPATFULL
AN 1999:102915 USPATFULL
TI Energy transfer dyes with enhanced fluorescence
IN Lee, Linda G., Palo Alto, CA, United States
Spurgeon, Sandra L., San Mateo, CA, United States
Rosenblum, Barnett, San Jose, CA, United States
PA Perkin-Elmer Corporation, Foster City, CA, United States (U.S. corporation)
PI US 5945526 19990831
AI US 1998-46203 19980323 (9)
RLI Continuation-in-part of Ser. No. US 1996-642330, filed on 3 May 1996, now patented, Pat. No. US 5863727 And Ser. No. US 1996-672196, filed on 27 Jun 1996, now patented, Pat. No. US 5847162
DT Utility
FS Granted

EXNAM Primary Examiner: Houtteman, Scott W.
LREP Wilson, Sonsini, Goodrich & Rosati
CLMN Number of Claims: 109
ECL Exemplary Claim: 1
DRWN 28 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2985
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye are provided. These linkers faciliate the efficient transfer of energy between a donor and acceptor dye in an energy transfer dye. One of these linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye has the general structure R.sub.21 Z.sub.1 C(O)R.sub.22 R.sub.28 where R.sub.21 is a C.sub.1-5 alkyl attached to the donor dye, C(O) is a carbonyl group, Z.sub.1 is either NH, sulfur or oxygen, R.sub.22 is a substituent which includes an alkene, diene, alkyne, a five and six membered ring having at least one unsaturated bond or a fused ring structure which is attached to the carbonyl carbon, and R.sub.28 includes a functional group which attaches the linker to the acceptor dye.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 24 OF 26 USPATFULL
AN 1999:12742 USPATFULL
TI Energy transfer dyes with enhanced fluorescence
IN Lee, Linda G., Palo Alto, CA, United States
Spurgeon, Sandra L., San Mateo, CA, United States
Rosenblum, Barnett, San Jose, CA, United States
PA The Perkin-Elmer Corporation, Foster City, United States (U.S. corporation)
PI US 5863727 19990126
AI US 1996-642330 19960503 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Houtteman, Scott W.
LREP Wilson Sonsini Goodrich & Rosati
CLMN Number of Claims: 59
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 1909
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Energy transfer fluorescent dyes, reagents incorporating the dyes, kits and methods for using the dyes and reagents are provided. The energy transfer fluorescent dyes include a donor dye which absorbs light at a first wavelength and emits excitation energy in response, the donor dye including a xanthene ring structure having a 4' ring position, an acceptor dye capable of absorbing the excitation energy emitted by the donor dye and fluorescing at a second wavelength in response, and a linker attaching the donor dye to the acceptor dye, the linker having a 4' end which includes a R.sub.1 XC(O)R.sub.2 group where R.sub.1 is a C.sub.1-5 alkyl attached to the 4' ring position of the donor dye, X selected from the group consisting of NH, sulfur and oxygen, C(O) is a carbonyl group, and R.sub.2 includes an alkene, diene, alkyne, a five and six membered ring having at least one unsaturated bond or a fused ring structure which is attached to the carbonyl carbon. Alternatively, the energy transfer fluorescent dyes include a donor dye which absorbs light at a first wavelength and emits excitation energy in response, the donor dye including a xanthene ring structure, an acceptor dye which is either a xanthene, cyanine, phthalocyanine or squaraine dye which is capable of absorbing the excitation energy emitted by the donor dye and fluorescing at a second wavelength in response, the acceptor having an emission maximum that is greater than about 600 nm or at least about 100

nm greater than the absorbance maximum of the donor dye, and a linker attaching the donor dye to the acceptor dye.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 25 OF 26 USPATFULL
AN 1998:147707 USPATFULL
TI Asymmetric benzoxanthene dyes
IN Benson, Scott C., Oakland, CA, United States
Menchen, Steven M., Fremont, CA, United States
Theisen, Peter D., South San Francisco, CA, United States
Hennessey, Kevin M., San Mateo, CA, United States
Furniss, Vergine C., San Mateo, CA, United States
Hauser, Joan, Oakland, CA, United States
PA The Perkin-Elmer Corporation, Foster City, CA, United States (U.S. corporation)
PI US 5840999 19981124
AI US 1997-824102 19970326 (8)
RLI Division of Ser. No. US 1996-626085, filed on 1 Apr 1996
DT Utility
FS Granted
EXNAM Primary Examiner: Marschel, Ardin H.; Assistant Examiner: Riley, Jezia
LREP Grossman, Paul D.
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 13 Drawing Figure(s); 13 Drawing Page(s)
LN.CNT 1503
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A class of asymmetric monobenzoxanthene compounds useful as fluorescent dyes are disclosed having the structure ##STR1## wherein Y.sub.1, and Y.sub.2 are individually hydroxyl, amino, imminium, or oxygen, R.sub.1 -R.sub.8 are hydrogen, fluorine, chlorine, alkyl alkene, alkyne, sulfonate, amino, amido, nitrile, alkoxy, linking group, and combinations thereof, and R.sub.9 is acetylene, alkane, alkene, cyano, substituted phenyl and combinations thereof The invention ftrther includes novel intermediate compounds useful for the synthesis of asymmetric benzoxanthene compounds having the general structure ##STR2## where substituents R.sub.3 -R.sub.7 correspond to like-referenced substituents in the structure of described above, and Y.sub.2 is hydroxyl or amine. In another aspect, the invention includes methods for synthesizing the above dye compounds and intermediates. In yet another aspect, the present invention includes reagents labeled with the asymmetric benzoxanthene dye compounds, including deoxynucleotides, dideoxynucleotides, phosphoramidites, and polynucleotides. In an additional aspect, the invention includes methods utilizing such dye compounds and reagents including dideoxy polynucleotide sequencing and fragment analysis methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 26 OF 26 USPATFULL
AN 1998:104569 USPATFULL
TI Energy transfer dyes with enchanced fluorescence
IN Lee, Linda G., Palo Alto, CA, United States
Spurgeon, Sandra L., San Mateo, CA, United States
Rosenblum, Barnett, San Jose, CA, United States
PA The Perkin Elmer Corporation, Foster City, CA, United States (U.S. corporation)
PI US 5800996 19980901
AI US 1996-726462 19961004 (8)
RLI Continuation-in-part of Ser. No. US 1996-642330, filed on 3 May 1996 And Ser. No. US 1996-672196, filed on 27 Jun 1996

09567863

DT Utility
FS Granted
EXNAM Primary Examiner: Houtteman, Scott W.
LREP Wilson Sonsini Goodrich & Rosati
CLMN Number of Claims: 79
ECL Exemplary Claim: 1,76
DRWN 28 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2556
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye are provided. These linkers faciliate the efficient transfer of energy between a donor and acceptor dye in an energy transfer dye. One of these linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye has the general structure R.sub.21 Z.sub.1 C(O)R.sub.22 R.sub.28 where R.sub.21 is a C.sub.1-5 alkyl attached to the donor dye, C(O) is a carbonyl group, Z.sub.1 is either NH, sulfur or oxygen, R.sub.22 is a substituent which includes an alkene, diene, alkyne, a five and six membered ring having at least one unsaturated bond or a fused ring structure which is attached to the carbonyl carbon, and R.sub.28 includes a functional group which attaches the linker to the acceptor dye.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

09567863

```
=> file biosis medline caplus wpids uspatfull
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'BIOSIS' ENTERED AT 16:00:14 ON 24 JUN 2003
COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'MEDLINE' ENTERED AT 16:00:14 ON 24 JUN 2003

FILE 'CAPLUS' ENTERED AT 16:00:14 ON 24 JUN 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 16:00:14 ON 24 JUN 2003
COPYRIGHT (C) 2003 THOMSON DERWENT

FILE 'USPATFULL' ENTERED AT 16:00:14 ON 24 JUN 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

*** YOU HAVE NEW MAIL ***

=> s positiv? (6a)link? (6a) phosph? (6a) (dye or label?)
   4 FILES SEARCHED...
L1            7 POSITIV? (6A) LINK? (6A) PHOSPH? (6A) (DYE OR LABEL?)

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2            7 DUP REM L1 (0 DUPLICATES REMOVED)

=> s l2 and oligonucleotide?
L3            7 L2 AND OLIGONUCLEOTIDE?

=> d l2 bib abs 1-7

L2   ANSWER 1 OF 7  USPATFULL
AN     2003:106233  USPATFULL
TI     Compositions and methods for the therapy and diagnosis of pancreatic
       cancer
IN     Benson, Darin R., Seattle, WA, UNITED STATES
       Kalos, Michael D., Seattle, WA, UNITED STATES
       Lodes, Michael J., Seattle, WA, UNITED STATES
       Persing, David H., Redmond, WA, UNITED STATES
       Hepler, William T., Seattle, WA, UNITED STATES
       Jiang, Yuqiu, Kent, WA, UNITED STATES
PA     Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI     US 2003073144      A1   20030417
AI     US 2002-60036      A1   20020130 (10)
PRAI   US 2001-333626P     20011127 (60)
       US 2001-305484P     20010712 (60)
       US 2001-265305P     20010130 (60)
       US 2001-267568P     20010209 (60)
       US 2001-313999P     20010820 (60)
       US 2001-291631P     20010516 (60)
       US 2001-287112P     20010428 (60)
       US 2001-278651P     20010321 (60)
       US 2001-265682P     20010131 (60)
DT     Utility
FS     APPLICATION
LREP   SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
```

SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 14253
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly pancreatic cancer, are disclosed. Illustrative compositions comprise one or more pancreatic tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly pancreatic cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 2 OF 7 USPATFULL
AN 2002:301135 USPATFULL
TI Flowcell system for nucleic acid sequencing
IN Williams, John G.K., Lincoln, NE, UNITED STATES
Bashford, Gregory R., Lincoln, NE, UNITED STATES
PA Li-cor, Inc., Lincoln, NE (U.S. corporation)
PI US 2002168678 A1 20021114
AI US 2002-146400 A1 20020514 (10)
RLI Continuation of Ser. No. US 2001-876375, filed on 6 Jun 2001, PENDING
PRAI US 2000-209896P 20000607 (60)
US 2001-286238P 20010424 (60)
DT Utility
FS APPLICATION
LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834
CLMN Number of Claims: 54
ECL Exemplary Claim: 1
DRWN 18 Drawing Page(s)
LN.CNT 2248
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides compounds, methods and systems for sequencing nucleic acid using single molecule detection. Using labeled NPs that exhibit charge-switching behavior, single-molecule DNA sequencing in a microchannel sorting system is realized. In operation, sequencing products are detected enabling real-time sequencing as successive detectable moieties flow through a detection channel. By electrically sorting charged molecules, the cleaved product molecules are detected in isolation without interference from unincorporated NPs and without illuminating the polymerase-DNA complex.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 3 OF 7 USPATFULL
AN 2002:272801 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN Stolk, John A., Bothell, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Chenault, Ruth A., Seattle, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2002150922 A1 20021017
AI US 2001-998598 A1 20011116 (9)
PRAI US 2001-304037P 20010710 (60)
US 2001-279670P 20010328 (60)
US 2001-267011P 20010206 (60)

09567863

US 2000-252222P 20001120 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 9233
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 4 OF 7 USPATFULL
AN 2002:243051 USPATFULL
TI Compositions and methods for the therapy and diagnosis of ovarian cancer
IN Algate, Paul A., Issaquah, WA, UNITED STATES
Jones, Robert, Seattle, WA, UNITED STATES
Harlocker, Susan L., Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2002132237 A1 20020919
AI US 2001-867701 A1 20010529 (9)
PRAI US 2000-207484P 20000526 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 25718
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly ovarian cancer, are disclosed. Illustrative compositions comprise one or more ovarian tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 5 OF 7 USPATFULL
AN 2002:242791 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN King, Gordon E., Shoreline, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Secrist, Heather, Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES (U.S. corporation)
PI US 2002131971 A1 20020919
AI US 2001-33528 A1 20011226 (10)
RLI Continuation-in-part of Ser. No. US 2001-920300, filed on 31 Jul 2001,

09567863

PENDING
PRAI US 2001-302051P 20010629 (60)
US 2001-279763P 20010328 (60)
US 2000-223283P 20000803 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 8083
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 6 OF 7 USPATFULL
AN 2002:78417 USPATFULL
TI Charge-switch nucleotides
IN Williams, John G.K., Lincoln, NE, UNITED STATES
Bashford, Gregory R., Lincoln, NE, UNITED STATES
Chen, Jiyan, Lincoln, NE, UNITED STATES
Draney, Dan, Lincoln, NE, UNITED STATES
Narayanan, Nara, Greensboro, NC, UNITED STATES
Reynolds, Bambi L., Lincoln, NE, UNITED STATES
Sheaff, Pamela, Omaha, NE, UNITED STATES
PI US 2002042071 A1 20020411
AI US 2001-876374 A1 20010606 (9)
PRAI US 2000-209896P 20000607 (60)
US 2001-286238P 20010424 (60)
DT Utility
FS APPLICATION
LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834
CLMN Number of Claims: 48
ECL Exemplary Claim: 1
DRWN 18 Drawing Page(s)
LN.CNT 2250
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides compounds, methods and systems for sequencing nucleic acid using single molecule detection. Using labeled NPs that exhibit charge-switching behavior, single-molecule DNA sequencing in a microchannel sorting system is realized. In operation, sequencing products are detected enabling real-time sequencing as successive detectable moieties flow through a detection channel. By electrically sorting charged molecules, the cleaved product molecules are detected in isolation without interference from unincorporated NPs and without illuminating the polymerase-DNA complex.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 7 OF 7 USPATFULL
AN 2002:72601 USPATFULL
TI Nucleic acid sequencing using charge-switch nucleotides

09567863

IN Williams, John G.K., Lincoln, NE, UNITED STATES
Bashford, Gregory R., Lincoln, NE, UNITED STATES
PI US 2002039738 A1 20020404
AI US 2001-876375 A1 20010606 (9)
PRAI US 2000-209896P 20000607 (60)
US 2001-286238P 20010424 (60)
DT Utility
FS APPLICATION
LREP TOWNSEND AND TOWNSEND AND CREW, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834
CLMN Number of Claims: 54
ECL Exemplary Claim: 1
DRWN 18 Drawing Page(s)
LN.CNT 2167
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides compounds, methods and systems for sequencing nucleic acid using single molecule detection. Using labeled NPs that exhibit charge-switching behavior, single-molecule DNA sequencing in a microchannel sorting system is realized. In operation, sequencing products are detected enabling real-time sequencing as successive detectable moieties flow through a detection channel. By electrically sorting charged molecules, the cleaved product molecules are detected in isolation without interference from unincorporated NPs and without illuminating the polymerase-DNA complex.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d l2 7 kwic

L2 ANSWER 7 OF 7 USPATFULL
DETD . . . linker having a charge of +2. This nucleotide can be incorporated into DNA by a polymerase, with the release of **phosphate**, thus the PPi-**Linker**-**Dye** moiety acquires a more **positive** charge than the intact .gamma.-NTP-**Dye**.

=>